

POWER GENERATION OPERATOR/MECHANIC*Class Definition*

Under general supervision, operates, maintains and repairs dual-fuel/clean-burn gas engines and auxiliary equipment generating electrical power for use in wastewater treatment operations.

Distinguishing Characteristics

Power Generation Operator/Mechanic is a journey level class. Incumbents are responsible for the operation, monitoring, maintenance and repair of dual-fuel/clean-burn engines, generators and auxiliary equipment producing 2.4 megawatts of electrical power for use in the Wastewater Treatment Plant. This equipment is housed in a separate power generation facility at the treatment plant site. This class differs from Power Generation System Supervisor in that an incumbent in the latter class is a first-line supervisor responsible for planning, assigning, scheduling, and evaluating the work performance of Power Generation Operator/Mechanics.

Typical Tasks

(An incumbent may not be assigned all duties listed, nor do the examples cover all duties which may be assigned.)

Operates and maintains dual-fuel/clean-burn engines, generators, gas compressors, automatic valves and filters, diesel fuel systems, plumbing filters and pumps, heat exchangers and other equipment.

Inspects, regulates, and adjusts equipment and operates manual controls to insure that power output is maintained at predetermined levels and is distributed properly.

Monitors gauges, meters and other measuring and recording devices.

Keeps records and logs of power plant operations, fuel used, maintenance performed, and equipment breakdowns or other out-of-the ordinary occurrences.

Shuts down and starts up equipment as required for repairs or maintenance.

Repairs and overhauls engines, generators, and auxiliary equipment as a part of preventive maintenance or when breakdowns occur.

Utilizes plant computer system for monitoring and controlling power plant operation activities and producing records and reports.

Services, cleans and lubricates equipment.

Uses a variety of hand and power tools.

Reviews supplies inventory and takes appropriate steps to replenish as required.

Recognizes potential on-the-job hazards and uses safe operating procedures and safety equipment in performing routine and unusual procedures to insure the health and safety of themselves and their fellow workers.

Performs related duties as required.

Knowledge, Abilities, and Skills

Knowledge of the operation, maintenance, and servicing of large dual-fuel/clean-burn engines, generators, compressors and related auxiliary equipment.

Knowledge of safety rules, codes, procedures and precautions relating to large stationary engines and auxiliary equipment, including explosive gases, flammable or toxic liquids, moving machinery parts, and pressure components.

Knowledge of the principles, procedures and practices of manual and automatic switching operations of generating equipment.

Knowledge of the methods, tools and equipment used in repairing and overhauling dual-fuel diesel engines, and air and gas compressor units.

Knowledge of the layout, equipment, instrumentation and functions of an electrical generation, transmission and distribution system.

Ability to learn new procedures and readily adapt to changing technology.

Ability to recognize abnormal operating functioning and take appropriate action.

Ability to keep necessary written records and communicate effectively orally and in required reports.

Ability to establish and maintain effective working relationships with others.

Skill in operating and maintaining dual-fuel methane/diesel engines and auxiliary equipment and making the necessary timely adjustments to meet various operating needs.

Minimum Qualifications

Three years of increasingly responsible experience in operating, maintaining and repairing mechanical and electrical equipment similar to that used in an engine-driven electrical power generating plant.

Necessary Special Requirement

Possession of a valid California Driver's License at time of appointment.

APPROVED: _____
Director of Personnel

DATE: _____

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+452/SPEC5